



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,383	12/03/2003	Yoshihiro Someno	9281-4722	5589

7590 03/14/2005

Brinks Hofer Gilson & Lione
P.O. Box 10395
Chicago, IL 60610

EXAMINER

LAM, CATHY FONG FONG

ART UNIT	PAPER NUMBER
----------	--------------

1775

DATE MAILED: 03/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/726,383

Applicant(s)

SOMENO ET AL.

Examiner

Cathy Lam

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) 3 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1, 2 and 4-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

Art Unit: 1775

In view of the amendment and remarks filed on January 3rd, 2005, the pending claims are unpatentable as following:

Election/Restrictions

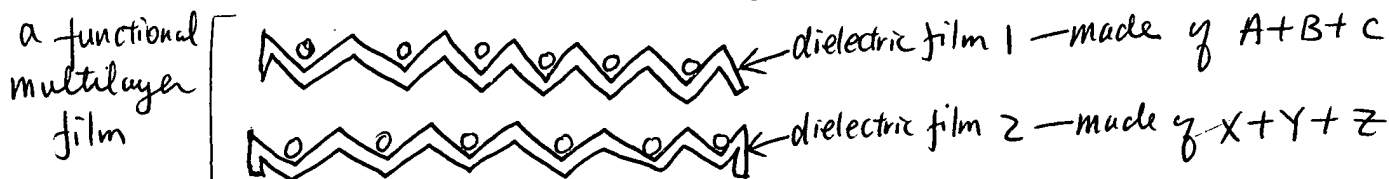
1. Applicant's election of group I (ie. claims 1-2) in the reply filed on Jan 3rd 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. This application contains claim 3 drawn to an invention nonelected with traverse. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 112

3. Claims 2, 4-9, 12, 14 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 is indefinite, as it is unclear what the last two lines are referring to?

In the newly added claims, the phrase "different materials" is vague and indefinite; for example, it is not clear what ".....made of different materials in a region including a plurality of the metal...." Is referring to?



Or dielectric film 1 = dielectric film 2, such that both made of A+B+C or both made of X+Y+Z? Furthermore, it is not clear what "in a region" is referring to?

In claim 12, line 4 "a second later" is believed as a typographical error. Furthermore, the claim is indefinite as it initially claims the fine metallic bodies in the first layer is aligned with the fine metallic bodies of the second layer, then the claim language is changing the scope to having a direction orthogonal to each other. Clarification is required.

In claim 14 & 17, it is vague and indefinite as to what are "oriented in a regular pattern" and "the arrangement of the fine metallic bodiesis regular" referring to? Clarification is required.

Claim Rejections - 35 USC § 103

4. Claims 1-2 and 4-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pugh, III (US 4046454) or Miller (US 3864018) in view of Li et al (US 6377732).

Applicant is reminded that claim 12 is a product by process claim, product by process claims are not patentably distinct over product claims unless it can be shown that the product produced by the process is in some manner measurably distinct from the product produced by another process, therefore there will be no weight given to the product by process verses product claims.

Both Pugh, III and Miller teach a waveguide structure comprised of optical fibers.

Pugh teaches a plurality of chips (10,11) each has uniformly spaced V-grooves (14) formed on the chip's surface. Each groove (14) receives a single optical fiber (22) (col 2 L 17-20 & Figs. 1-2).

The chips (10,11) are made of dielectric material such as fused quartz or crystalline silicon and are stacked together (col 3 L 48-49). The examiner takes the position that the dielectric material are made of different materials.

Miller discloses a multiple linear arrays of optical fiber. The structure is comprised of chips (10) having a plurality of spaced grooves (11) and optical fibers (15) are placed into the grooves (11) (col 2 L 35-39 & Fig. 4).

Both Pugh and Miller are silent about the optical fiber is a metallic material.

Li discloses an optical waveguide comprised of a silicon substrate (10), groove and an optical fiber (20).

A V-groove is formed in the substrate (10) and an optical fiber (20) is formed into the groove (22). The optical fiber (20) is metal coated fiber (34) (col 5 L 12-13, Figs. 2-3). The examiner takes the position that the metal coated fiber is analogous to the claimed fine metallic bodies.

In view of the prior art teachings, it would have been obvious to fabricate a functional multilayer film with grooves (or slots) in a dielectric layer and having metallized optical fiber placed in the grooves because such arrangement is well known.

Regarding to claim 2, the examiner is taking the position that applicant is claiming that the dielectric thin film and the fine metallic bodies are made of different material. Such limitation is met by Li, since the dielectric is made of silicon or silica substrate and the optical fiber is a metal coated fiber (col 2 L 22-23 & col 5 L 10-13).

Response to Arguments

5. Applicant's arguments filed on Jan 3rd 2005 have been fully considered but they are not persuasive. In the remarks, applicant states that the fine metallic bodies in claim 1 cannot be equated to the (metallized) optical fibers as in the prior art. It is the applicant's position to differentiate the presently claimed fine metallic bodies and the metallized optical fibers. Applicant is required to further clarify the shape of the fine metallic bodies are not fibers or fibrous shaped material.

The examiner takes the position that the metallized optical fibers read on the fine metallic bodies. The fine metallic bodies in claims 12-14 read on a fiber shaped body.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 1775

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cathy Lam whose telephone number is (571) 272-1538. The examiner can normally be reached on 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Cathy Lam
Primary Examiner
Art Unit 1775

cfl
March 07, 2005